

ABSTRACT OF THE DISCLOSURE

5 A method of dry-etching a multi-layer film material including a thin metal film is provided, wherein a combination of at least one of gases including a gas containing a carbonyl group and a gas containing a halogen element, and an electron donating gas is used as an etching gas. With the method, a method of dry-etching a multi-layer film material is provided, wherein the etching characteristic such as the etching rate, etching anisotropy and the like can be improved, and a formed polymer film at a sidewall of a pattern can not only be reduced but removed efficiently.